

Quarantine Laws
and
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TREASURY DEPARTMENT.

QUARANTINE LAWS AND REGULATIONS

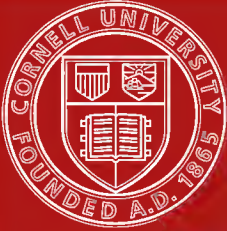
OF THE

UNITED STATES.

REVISED EDITION.

WASHINGTON:
GOVERNMENT PRINTING OFFICE,

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TREASURY DEPARTMENT.

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TREASURY DEPARTMENT,
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Public Health and Marine-Hospital Service.

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QUARANTINE LAWS OF THE UNITED STATES.

AN ACT granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service.

[Approved, February 15, 1893.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any merchant ship or other vessel from any foreign port or place of [to] enter any port of the United States except in accordance with the provisions of this act and with such rules and regulations of State and municipal health authorities as may be made in pursuance of, or consistent with, this act; and any such vessel which shall enter, or attempt to enter, a port of the United States in violation thereof shall forfeit to the United States a sum, to be awarded in the discretion of the court, not exceeding five thousand dollars, which shall be a lien upon said vessel, to be recovered by proceedings in the proper district court of the United States. In all such proceedings the United States district attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States.

SEC. 2. That any vessel at any foreign port clearing for any port or place in the United States shall be required to obtain from the consul, vice-consul, or other consular officer of the United States at the port of departure, or from the medical officer where such officer has been detailed by the President for that purpose, a bill of health, in duplicate, in the form prescribed by the Secretary of the Treasury, setting forth the sanitary history and condition of said vessel, and that it has in all respects complied with the rules and regulations in such cases prescribed for securing the best sanitary condition of the said vessel, its cargo, passengers, and crew; and said consular or medical officer is required, before granting such duplicate bill of health, to be satisfied that the matters and things therein stated are true; and for his services in that behalf he shall be entitled to demand and receive such fees as shall by lawful regulation be allowed, to be accounted for as is required in other cases.

The President, in his discretion, is authorized to detail any medical officer of the Government to serve in the office of the consul at any foreign port for the purpose of furnishing information and making the inspection and giving the bills of health hereinbefore mentioned. Any vessel clearing and sailing from any such port without such bill of health, and entering any port of the United States, shall forfeit to the United States not more than five thousand dollars, the amount to be determined by the court, which shall be a lien on the same, to be recovered by proceedings in the proper district court of the United

States. In all such proceedings the United States district attorney for such district shall appear on behalf of the United States; and all such proceedings shall be conducted in accordance with the rules and laws governing cases of seizure of vessels for violation of the revenue laws of the United States.

SEC. 3. That the Supervising Surgeon-General of the Marine-Hospital Service shall, immediately after this act takes effect, examine the quarantine regulations of all State and municipal boards of health, and shall, under the direction of the Secretary of the Treasury, cooperate with and aid State and municipal boards of health in the execution and enforcement of the rules and regulations of such boards and in the execution and enforcement of the rules and regulations made by the Secretary of the Treasury, to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, and into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia; and all rules and regulations made by the Secretary of the Treasury shall operate uniformly and in no manner discriminate against any port or place; and at such ports and places within the United States as have no quarantine regulations under State or municipal authority, where such regulations are, in the opinion of the Secretary of the Treasury, necessary to prevent the introduction of contagious or infectious diseases into the United States from foreign countries, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, and at such ports and places within the United States where quarantine regulations exist under the authority of the State or municipality which, in the opinion of the Secretary of the Treasury, are not sufficient to prevent the introduction of such diseases into the United States, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, the Secretary of the Treasury shall, if in his judgment it is necessary and proper, make such additional rules and regulations as are necessary to prevent the introduction of such diseases into the United States from foreign countries, or into one State or Territory or the District of Columbia from another State or Territory or the District of Columbia, and when said rules and regulations have been made they shall be promulgated by the Secretary of the Treasury and enforced by the sanitary authorities of the States and municipalities, where the State or municipal health authorities will undertake to execute and enforce them; but if the State or municipal authorities shall fail or refuse to enforce said rules and regulations the President shall execute and enforce the same and adopt such measures as in his judgment shall be necessary to prevent the introduction or spread of such diseases, and may detail or appoint officers for that purpose. The Secretary of the Treasury shall make such rules and regulations as are necessary to be observed by vessels at the port of departure and on the voyage, where such vessels sail from any foreign port or place to any port or place in the United States, to secure the best sanitary condition of such vessel, her cargo, passengers, and crew; which shall be published and communicated to and enforced by the consular officers of the United States. None of the penalties herein imposed shall attach to any vessel or owner or officer thereof until a copy of this act, with the rules and regulations made in pursuance thereof, has been posted up in the office of the consul or

other consular officer of the United States for ten days, in the port from which said vessel sailed; and the certificate of such consul or consular officer over his official signature shall be competent evidence of such posting in any court of the United States.

SEC. 4. That it shall be the duty of the Supervising Surgeon-General of the Marine-Hospital Service, under the direction of the Secretary of the Treasury, to perform all the duties in respect to quarantine and quarantine regulations which are provided for by this act, and to obtain information of the sanitary condition of foreign ports and places from which contagious and infectious diseases are or may be imported into the United States, and to this end the consular officer of the United States at such ports and places as shall be designated by the Secretary of the Treasury shall make to the Secretary of the Treasury weekly reports of the sanitary condition of the ports and places at which they are respectively stationed, according to such forms as the Secretary of the Treasury shall prescribe; and the Secretary of the Treasury shall also obtain, through all sources accessible, including State and municipal sanitary authorities throughout the United States, weekly reports of the sanitary condition of ports and places within the United States, and shall prepare, publish, and transmit to collectors of customs and to State and municipal health officers and other sanitarians weekly abstracts of the consular sanitary reports and other pertinent information received by him, and shall also, as far as he may be able, by means of the voluntary cooperation of State and municipal authorities, of public associations, and private persons, procure information relating to the climatic and other conditions affecting the public health, and shall make an annual report of his operations to Congress, with such recommendations as he may deem important to the public interests.

SEC. 5. That the Secretary of the Treasury shall from time to time issue to the consular officers of the United States and to the medical officers serving at any foreign port, and otherwise make publicly known, the rules and regulations made by him, to be used and complied with by vessels in foreign ports, for securing the best sanitary condition of such vessels, their cargoes, passengers, and crew, before their departure for any port in the United States, and in the course of the voyage; and all such other rules and regulations as shall be observed in the inspection of the same on the arrival thereof at any quarantine station at the port of destination, and for the disinfection and isolation of the same, and the treatment of cargo and persons on board, so as to prevent the introduction of cholera, yellow fever, or other contagious or infectious diseases; and it shall not be lawful for any vessel to enter said port to discharge its cargo, or land its passengers, except upon a certificate of the health officer at such quarantine station certifying that said rules and regulations have in all respects been observed and complied with, as well on his part as on the part of the said vessel and its master, in respect to the same and to its cargo, passengers, and crew; and the master of every such vessel shall produce and deliver to the collector of customs at said port of entry, together with the other papers of the vessel, the said bills of health required to be obtained at the port of departure and the certificate herein required to be obtained from the health officer at the port of entry; and that the bills of health herein prescribed shall be considered as part of the ship's papers, and when duly certified to by the

proper consular officer or other officer of the United States, over his official signature and seal, shall be accepted as evidence of the statements therein contained in any court of the United States.

SEC. 6. That on the arrival of an infected vessel at any port not provided with proper facilities for treatment of the same, the Secretary of the Treasury may remand said vessel, at its own expense, to the nearest national or other quarantine station, where accommodations and appliances are provided for the necessary disinfection and treatment of the vessel, passengers, and cargo; and after treatment of any infected vessel at a national quarantine station, and after certificate shall have been given by the United States quarantine officer at said station that the vessel, cargo, and passengers are each and all free from infectious disease, or danger of conveying the same, said vessel shall be admitted to entry to any port of the United States named within the certificate. But at any ports where sufficient quarantine provision has been made by State or local authorities the Secretary of the Treasury may direct vessels bound for said ports to undergo quarantine at said State or local station.

SEC. 7. That whenever it shall be shown to the satisfaction of the President that by reason of the existence of cholera or other infectious or contagious diseases in a foreign country there is serious danger of the introduction of the same into the United States, and that notwithstanding the quarantine defense this danger is so increased by the introduction of persons or property from such country that a suspension of the right to introduce the same is demanded in the interest of the public health, the President shall have power to prohibit, in whole or in part, the introduction of persons and property from such countries or places as he shall designate and for such period of time as he may deem necessary.

SEC. 8. That whenever the proper authorities of a State shall surrender to the United States the use of the buildings and disinfecting apparatus at a State quarantine station the Secretary of the Treasury shall be authorized to receive them and to pay a reasonable compensation to the State for their use, if, in his opinion, they are necessary to the United States.

SEC. 9. That the act entitled "An act to prevent the introduction of infectious or contagious diseases into the United States, and to establish a national board of health," approved March 3, 1879, be, and the same is hereby, repealed. And the Secretary of the Treasury is directed to obtain possession of any property, furniture, books, paper, or records belonging to the United States which are not in the possession of an officer of the United States under the Treasury Department which were formerly in the use of the National Board of Health or any officer or employé thereof.

ACT OF CONGRESS APPROVED AUGUST 18, 1894.

AN ACT to amend section two of the act approved February fifteenth, eighteen hundred and ninety-three, entitled "An act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service."

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section two of the act approved February fifteenth, eighteen hundred and ninety-three, entitled "An act granting additional quarantine powers and impos-

ing additional duties upon the Marine-Hospital Service," is hereby amended by adding to the end of said section the following:

"The provisions of this section shall not apply to vessels plying between foreign ports on or near the frontiers of the United States and ports of the United States adjacent thereto; but the Secretary of the Treasury is hereby authorized, when, in his discretion, it is expedient for the preservation of the public health, to establish regulations governing such vessels."

REVISED STATUTES.

SEC. 4794. There shall be purchased or erected, under the orders of the President, suitable warehouses, with wharves and inclosures, where merchandise may be unladen and deposited, from any vessel which shall be subject to a quarantine or other restraint, pursuant to the health laws of any State, at such convenient places therein as the safety of the public revenue and the observance of such health laws may require.

SEC. 4795. Whenever the cargo of a vessel is unladen at some other place than the port of entry or delivery under the foregoing provisions, all the articles of such cargo shall be deposited, at the risk of the parties concerned therein, in such public or other warehouses or inclosures as the collector shall designate, there to remain under the joint custody of such collector and of the owner, or master, or other person having charge of such vessel, until the same are entirely unladen or discharged, and until the articles so deposited may be safely removed without contravening such health laws. And when such removal is allowed, the collector having charge of such articles may grant permits to the respective owners or consignees, their factors or agents, to receive all merchandise which has been entered, and the duties accruing upon which have been paid, upon the payment by them of a reasonable rate of storage; which shall be fixed by the Secretary of the Treasury for all public warehouses and inclosures.

SEC. 4796. The Secretary of the Treasury is authorized, whenever a conformity to such quarantines and health laws requires it, and in respect to vessels subject thereto, to prolong the terms limited for the entry of the same and the report or entry of their cargoes, and to vary or dispense with any other regulations applicable to such reports or entries. No part of the cargo of any vessel shall, however, in any case, be taken out or unladen therefrom otherwise than is allowed by law, or according to the regulations hereinafter established.

SEC. 4797. Whenever, by the prevalence of any contagious or epidemic disease in or near the place by law established as the port of entry for any collection district, it becomes dangerous or inconvenient for the officers of the revenue employed therein to continue the discharge of their respective offices at such port, the Secretary of the Treasury, or, in his absence, the First Comptroller, may direct the removal of the officers of the revenue from such port to any other more convenient place within or as near as may be to such collection district. And at such place such officers may exercise the same powers and shall be liable to the same duties, according to existing circumstances, as in the port or district established by law. Public notice of any such removal shall be given as soon as may be. [See § 1776.]

SEC. 4798. In case of the prevalence of a contagious or epidemic dis-

ease at the seat of Government, the President may permit and direct the removal of any or all the public offices to such other place or places as he shall deem most safe and convenient for conducting the public business. [See § 1776.]

SEC. 4799. Whenever, in the opinion of the Chief Justice, or, in case of his death or inability, of the senior associate justice, of the Supreme Court, a contagious or epidemic sickness shall render it hazardous to hold the next stated session of the court at the seat of Government, the chief or such associate justice may issue his order to the marshal of the Supreme Court directing him to adjourn the next session of the court to such other place as such justice deems convenient. The marshal shall thereupon adjourn the court by making publication thereof in one or more public papers printed at the seat of Government from the time he shall receive such order until the time by law prescribed for commencing the session. The several circuit and district judges shall, respectively, under the same circumstances, have the same power, by the same means, to direct adjournments of the several circuit and district courts to some convenient place within their districts, respectively. [See § 1776.]

SEC. 4800. The judge of any district court within whose district any contagious or epidemic disease shall at any time prevail, so as, in his opinion, to endanger the lives of persons confined in the prison of such district, in pursuance of any law of the United States, may direct the marshal to cause the persons so confined to be removed to the next adjacent prison where such disease does not prevail, there to be confined until they may safely be removed back to the place of their first confinement. Such removals shall be at the expense of the United States.

SEC. 4263. The master of any vessel employed in transporting passengers between the United States and Europe is authorized to maintain good discipline and such habits of cleanliness among the passengers as will tend to the preservation and promotion of health, and to that end he shall cause such regulations as he may adopt for this purpose to be posted up, before sailing, on board such vessel, in a place accessible to such passengers, and shall keep the same so posted up during the voyage. Such master shall cause the apartments occupied by such passengers to be kept at all times in a clean, healthy state; and the owners of every such vessel so employed are required to construct the decks and all parts of the apartments so that they can be thoroughly cleansed, and also to provide a safe, convenient privy or water-closet for the exclusive use of every one hundred such passengers. The master shall also, when the weather is such that the passengers can not be mustered on deck with their bedding, and at such other times as he may deem necessary, cause the deck occupied by such passengers to be cleansed with chloride of lime or some other equally efficient disinfecting agent. And for each neglect or violation of any of the provisions of this section the master and owner of any such vessel shall be severally liable to the United States in a penalty of fifty dollars, to be recovered in any circuit or district court within the jurisdiction of which such vessel may arrive or from which she is about to depart, or at any place where the owner or master may be found.

EXTRACT FROM ACT AUGUST 1, 1888.

Whenever any person shall trespass upon the grounds belonging to any quarantine reservation, * * * such person, tresspassing, * * * shall, upon conviction thereof, pay a fine of not more than three hundred dollars, or be sentenced to imprisonment for a period of not more than thirty days, or shall be punished by both fine and imprisonment, at the discretion of the court. And it shall be the duty of the United States attorney in the district where the misdemeanor shall have been committed to take immediate cognizance of the offense, upon report made to him by any medical officer of the Marine-Hospital Service, or by any officer of the customs service, or by any State officer acting under authority of section five of said act.

ACT MARCH 27, 1890.

AN ACT to prevent the introduction of contagious diseases from one State to another and for the punishment of certain offenses.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That whenever it shall be made to appear to the satisfaction of the President that cholera, yellow fever, smallpox, or plague exists in any State or Territory, or in the District of Columbia, and that there is danger of the spread of such disease into other States, Territories, or the District of Columbia, he is hereby authorized to cause the Secretary of the Treasury to promulgate such rules and regulations as in his judgment may be necessary to prevent the spread of such disease from one State or Territory into another, or from any State or Territory into the District of Columbia, or from the District of Columbia into any State or Territory, and to employ such inspectors and other persons as may be necessary to execute such regulations to prevent the spread of such disease. The said rules and regulations shall be prepared by the Supervising Surgeon-General of the Marine-Hospital Service under the direction of the Secretary of the Treasury. And any person who shall willfully violate any rule or regulation so made and promulgated shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not more than five hundred dollars, or imprisonment for not more than two years, or both, in the discretion of the court.

SEC. 2. That any officer, or person acting as an officer, or agent of the United States at any quarantine station, or other person employed to aid in preventing the spread of such disease, who shall willfully violate any of the quarantine laws of the United States, or any of the rules and regulations made and promulgated by the Secretary of the Treasury as provided for in Section 1 of this act, or any lawful order of his superior officer or officers, shall be deemed guilty of a misdemeanor, and upon conviction shall be punished by a fine of not more than three hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court.

SEC. 3. That when any common carrier or officer, agent, or employé of any common carrier shall willfully violate any of the quarantine laws of the United States, or the rules and regulations made and promulgated as provided for in Section 1 of this act, such common carrier, officer, agent, or employé shall be deemed guilty of a misdemeanor, and shall, on conviction, be punished by a fine of not more than five hundred dollars, or imprisonment for not more than two years, or both, in the discretion of the court.

ACT MARCH 2, 1901.

AN ACT to amend "An Act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service," approved February fifteenth, eighteen hundred and ninety-three.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That an Act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service, approved February fifteenth, eighteen hundred and ninety-three, be amended by addition of the following sections:

"SEC. 10. That the Supervising Surgeon-General, with the approval of the Secretary of the Treasury, is authorized to designate and mark the boundaries of the quarantine grounds and quarantine anchorages for vessels which are reserved for use at each United States quarantine station; and any vessel or officer of any vessel or other person, other than State or municipal health or quarantine officers, trespassing or otherwise entering upon such grounds or anchorages in disregard of the quarantine rules and regulations, or without permission of the officer in charge of such station, shall be deemed guilty of a misdemeanor and subject to arrest, and upon conviction thereof be punished by a fine of not more than three hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court. Any master or owner of any vessel, or any person violating any provision of this Act or any rule or regulation made in accordance with this Act, relating to inspection of vessels or relating to the prevention of the introduction of contagious or infectious diseases, or any master, owner, or agent of any vessel making a false statement relative to the sanitary condition of said vessel or its contents or as to the health of any passenger or person thereon, shall be deemed guilty of a misdemeanor and subject to arrest, and upon conviction thereof be punished by a fine of not more than five hundred dollars or imprisonment for not more than one year, or both, in the discretion of the court.

"SEC. 11. That any vessel sailing from any foreign port without the bill of health required by section two of this Act, and arriving within the limits of any collection district of the United States, and not entering or attempting to enter any port of the United States, shall be subject to such quarantine measures as shall be prescribed by regulations of the Secretary of the Treasury, and the cost of such measures shall be a lien on said vessel, to be recovered by proceedings in the proper district court of the United States and in the manner set forth above as regards vessels from foreign ports without bills of health and entering any port of the United States.

"SEC. 12. That the medical officers of the United States, duly clothed with authority to act as quarantine officers at any port or place within the United States, and when performing the said duties, are hereby authorized to take declarations and administer oaths in matters pertaining to the administration of the quarantine laws and regulations of the United States."

TREASURY DEPARTMENT,
SECRETARY'S OFFICE,
Washington, April 1, 1903.

To medical officers of the Public Health and Marine-Hospital Service, quarantine officers, collectors of customs, consular officers, and others concerned:

Upon the recommendation of the Surgeon-General of the Public Health and Marine-Hospital Service and pursuant to the act of Congress approved February 15, 1893, entitled "An act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service," and other quarantine laws, the following regulations are hereby promulgated for the information and guidance of all concerned. All previous regulations inconsistent herewith are hereby revoked.

L. M. SHAW,
Secretary of the Treasury.

QUARANTINE REGULATIONS.

QUARANTINABLE DISEASES.

1. For the purpose of these regulations the quarantinable diseases are cholera, yellow fever, smallpox, typhus fever, leprosy, and plague.

FOREIGN REGULATIONS.

QUARANTINE REGULATIONS TO BE OBSERVED AT FOREIGN PORTS AND AT PORTS IN THE POSSESSIONS AND DEPENDENCIES OF THE UNITED STATES.

BILLS OF HEALTH.

2. Masters of vessels departing from any foreign port, or from any port in the possessions or other dependencies of the United States for a port in the United States or its possessions or other dependencies, must obtain a bill of health, in duplicate, signed by the proper officer or officers of the United States as provided for by law, except as provided for in paragraph 4.

The following form is prescribed:

Form No. 1937.

UNITED STATES BILL OF HEALTH.

Name of vessel, _____. Nationality, _____. Rig, _____. Master, _____.
Tonnage, gross, _____; net, _____. Iron or wood. Number of compartments for cargo, _____; for steerage passengers, _____; for crew, _____.
Name of medical officer, _____.
Number of officers, _____.
Number of members of officers' families, _____.
Number of crew, including petty officers, _____.
Number of passengers, cabin, _____.
Number of passengers, steerage, _____.
Number of persons on board, all told, _____.
Port of departure, _____.
Where last from, _____.
Number of cases of sickness and character, during last voyage, _____.
Vessel engaged in _____ trade, and plies between _____ and _____.
Sanitary condition of vessel, _____.
Nature, sanitary history, and condition of cargo, _____.
Source and wholesomeness of water supply, _____.
Source and wholesomeness of food supply, _____.
Sanitary history and health of officers and crew, _____.
Sanitary history and health of passengers, cabin, _____.
Sanitary history and health of passengers, steerage, _____.
Sanitary history and condition of their effects, _____.
Prevailing diseases at port and vicinity, _____.
Location of vessel while discharging and loading—open hay or wharf, _____.
Number of cases and deaths from the following-named diseases during the past two weeks:

Diseases.	No. of cases.	No. of deaths.
Yellow fever	_____	_____
Asiatic cholera	_____	_____
Cholera nostras or cholérine	_____	_____
Smallpox	_____	_____
Typhus fever	_____	_____
Plague	_____	_____
Leprosy	_____	_____

Number of cases of sickness and character of same while vessel was in this port, _____.

Any conditions affecting the public health existing in the port of departure or vicinity to be here stated, _____.

I certify that the vessel has complied with the rules and regulations made under the act of February 15, 1893, and that the vessel leaves this port bound _____ for _____, U. S. of America, via _____.

Given under my hand and seal this _____ day of _____, 190 .
(Signature of consular officer:) _____,

3. Vessels clearing from a foreign port or from any port in the possessions or other dependencies of the United States for any port in the United States, its possessions or other dependencies, and entering or calling at intermediate ports, must procure at all said ports a supplemental bill of health in duplicate signed by the proper officer or officers of the United States, as provided in the law. If a quarantinable disease has appeared on board the vessel after leaving the original port of departure, or other circumstances presumably render the vessel infected, the supplemental bill of health should be withheld until such sanitary measures have been taken as are necessary.

The following form is prescribed:

SUPPLEMENTAL BILL OF HEALTH.

PORT OF _____.

Vessel _____, bound from _____ to _____, U. S. A.

Sanitary condition of port, _____.

State diseases prevailing at port and in surrounding country, _____.

Number of cases and the deaths from the following-named diseases during the past two weeks:

Diseases.	No. of cases.	No. of deaths.	Remarks. (Any condition affecting the public health existing in the port to be stated here.)
Yellow fever	
Asiatic cholera	
Cholera nostras, or cholerae	
Smallpox	
Typhus fever	
Plague	
Leprosy	

Number and sanitary condition of passengers and crew landed at this port.

Cabin, No. _____. Sanitary condition and history, _____.

Steerage, No. _____. Sanitary condition and history, _____.

Crew, No. _____. Sanitary condition and history, _____.

NOTE.—If disembarked on account of sickness state disease, _____.

Number and sanitary condition of passengers and crew taken on at this port, and sanitary condition of effects.

Cabin, No. _____. Sanitary condition and history, _____.

Steerage, No. _____. Sanitary condition and history, _____.

Crew, No. _____. Sanitary condition and history, _____.

Sanitary condition of effects, _____.

Sanitary history of vessel since leaving last port.

(Cancel Form A, B, or C, as the case requires.)

Form.

A.—To the best of my knowledge and belief—

(Form A will be used at intermediate ports where the vessel does not enter and clear.)

B.—I have satisfied myself that—

(Form B will be used at intermediate ports where the vessel enters and clears.)

} no quarantinable disease has appeared aboard since leaving _____.

C.—Since leaving —— the following quarantinable disease has appeared on board ——, and I certify that the necessary sanitary measures have been taken.

I certify also that with reference to the passengers, effects, and cargo taken on at this port, the vessel has complied with the rules and regulations made under the act of February 15, 1893.

Given under my hand and seal this —— day of ——, 190 .
(Signature of consular officer:) _____,

4. Under the act of Congress approved August 18, 1894, vessels plying between Canadian ports on the St. Croix River, the St. Lawrence River, the Niagara River, the Detroit River, the St. Clair River, and the St. Marys River, and adjacent ports of the United States on the same waters; also vessels plying between Canadian ports on the following-named lakes, viz, Ontario, Erie, St. Clair, Huron, Superior, Rainy Lake, Lake of the Woods, and Lake Champlain, and ports in the United States; also vessels plying between Mexican ports on the Rio Grande River and adjacent ports in the United States, are exempt from the provisions of section 2 of the act granting additional quarantine powers and imposing additional duties upon the Marine-Hospital Service, approved February 15, 1893, which requires vessels clearing from a foreign port for a port in the United States to obtain from the consular or medical officer a bill of health. During the prevalence of any of the quarantinable diseases at the foreign port of departure, vessels above referred to are hereby required to obtain from the consular officer of the United States, or from the medical officer of the United States, when such officer has been detailed by the President for this purpose, a bill of health, or a supplemental bill of health, in duplicate, in the form prescribed by the Secretary of the Treasury.

INSPECTION OF VESSELS LEAVING FOREIGN PORTS AND PORTS IN THE POSSESSIONS OR OTHER DEPENDENCIES OF THE UNITED STATES FOR PORTS IN THE UNITED STATES OR ITS POSSESSIONS OR OTHER DEPENDENCIES.

5. The officer issuing the bill of health shall satisfy himself, by inspection if necessary, that the conditions certified to therein are true, and is authorized, in accordance with the law, to withhold the bill of health or the supplemental bill of health until he is satisfied that the vessel, the passengers, the crew, and the cargo have complied with all the quarantine laws and regulations of the United States.

6. Inspection is required of—

(a) All vessels from ports at which cholera, yellow fever, or plague prevails, or at which smallpox or typhus fever prevails in epidemic form.

(b) All vessels carrying steerage passengers; but need only include the inspection of such passengers and their living apartments, if sailing from a healthy port.

7. Inspection of the vessel is such an examination of the vessel, cargo, passengers, crew, personal effects of same, including examination of manifests and other papers, food and water supply, the ascertainment of its relations with the shore, the manner of loading and possibilities of invasion by small animals as will enable the inspecting officer to determine if these regulations have been complied with.

8. When an inspection is required, it should be made by daylight, as late as practicable before sailing. The vessel should be inspected before the passengers go aboard, the passengers just before embarkation, and the crew on deck; and no communication should be had with the vessel after such inspection except by permission of the officer issuing the bill of health.

REQUIREMENTS WITH REGARD TO VESSELS.

9. Vessels, prior to stowing cargo or receiving passengers, should be mechanically clean in all parts, especially the hold, forecastle, and steerage; the bilges and limbers free from odor and deposit. The air streaks should be sufficient in number and open for ventilation.

10. Any portions of the vessel liable to have been infected by any communicable disease should be disinfected before the issuance of the bill of health.

11. The air space, ventilation, food and water supply, hospital accommodations, and all other matters mentioned therein promotive of the health and comfort of the passengers must be in accordance with the provisions of the act of Congress approved August 2, 1882, entitled "An act to regulate the carriage of passengers by sea."

12. At ports where cholera prevails in epidemic form, special care should be taken to prevent the water and the food supply from being infected. The drinking water should be boiled and the food thoroughly cooked and protected against contamination by flies, etc.

13. At ports where yellow fever prevails, in addition to the other measures presented hereafter, precautions should be taken to prevent the introduction of mosquitoes on board the vessel. Water tanks, water buckets and other collections of water about the vessel should be guarded in such a manner that they shall not become breeding places for mosquitoes. Measures should also be taken to destroy mosquitoes that may have come on board. Baggage destined directly or indirectly for any State should be disinfected at the request of the health officer of said State. All baggage from such ports must be rigidly inspected and the exclusion of mosquitoes assured.

14. At ports or places where plague prevails, every precaution must be taken to prevent the vessel becoming infected through the agency of rats, ants, flies, fleas, or other animals. At such ports or places the vessel should not lie at a dock, or tie to the shore, or anchor near any place where such animals may gain access to the vessel. In case cables are led to the shore they should be freshly tarred and provided with inverted cones or such other devices as may prevent rats and other animals passing to the ship. The introduction of vermin on board the vessel from lighters and all other sources should be guarded against. In such ports sulphur fumigation should be resorted to in the holds when empty and from time to time during loading in order to destroy vermin.

15. At all infected ports or places, communication between the vessel and shore should be reduced to a minimum.

16. Vessels carrying passengers from any port or place where quarantinable disease prevails in epidemic form should have one medical

officer; and from ports where cholera or plague prevails in epidemic form should have two medical officers if more than 250 passengers are carried.

CARGO.

17. Earth, loam, soft or porous rock should not be taken as ballast at ports infected with cholera or plague. Street sweepings, city cleanings, or anything containing organic refuse should not be taken as ballast from any port. Where practicable, hard rock or clean beach sand or sea-water ballast should be given preference.

18. Household goods, personal effects, bedding, and second-hand articles generally, coming from a district known to be infected with cholera, smallpox, typhus fever, or plague, or as to the origin of which no positive evidence can be obtained, and which the consular or medical officer has reason to believe are infected, should be disinfected prior to shipment. Measures should be taken with articles of this class from districts infected with yellow fever to insure their freedom from mosquitoes.

19. New merchandise in general may be accepted for shipment without restriction, and articles of new merchandise—textile fabrics and the like—which have been packed or prepared for shipment in an infected port or place, with a special view to protect the same from moisture incident to the voyage, may be accepted and exempted from disinfection.

20. Certain food products, viz, unsalted meats, sausages, dressed poultry, fresh butter, fresh milk (unsterilized), fresh cheese, coming from cholera-infected localities or through such localities, if exposed to infection therein, should not be shipped. Fresh fruits and vegetables, from districts where cholera prevails, shall be shipped only under such sanitary supervision as will enable the inspector to certify that they have not been exposed to infection.

21. All rags and textile fabrics used in the manufacture of paper and for other purposes which are collected, packed, or handled in any foreign port or place, with the exceptions as hereinafter specified, shall, prior to shipment to the United States, be subjected to disinfection by one of the prescribed methods. (Jute bags or bagging used in baling cotton, old rope, new cotton, or linen cuttings from factories not included.) The disinfection of the articles mentioned above shall be performed under the supervision of a United States consul or a medical officer of the United States, and a certificate in duplicate, signed by said consul or medical officer, shall be issued with each consignment of same, which certificate shall identify the articles and state that they have been disinfected in accordance with the United States quarantine regulations. The original certificate of disinfection shall be attached to the consignee's invoice, and where the articles are carried by sea the duplicate certificate of disinfection shall be attached to the bill of health issued to the vessel conveying the same.

Exceptions.—Such articles shipped from the Dominion of Canada directly to the United States shall be exempt from this requirement if accompanied by affidavits demonstrating to the satisfaction of the collector of customs at the port of arrival that they have actually originated in Canada and have not been shipped from a foreign country to Canada, and thence shipped to the United States; and further, that

the port or place where collected or handled has been free from quarantinable disease for thirty days prior to shipment.

22. New feathers for bedding, human and other hair (unmanufactured), bristles, wool, hides not chemically cured, coming from a district where cholera or plague prevails, shall be refused entry into the United States until thirty days have elapsed since last exposure in case of cholera, and sixty days in case of plague, unless unpacked and disinfected. Feathers which have been used should be disinfected, and invariably by steam.

Bristles which have been boiled, and wool and new feathers which have been packed in naphthalin preparatory to shipment, may be shipped without further treatment.

Dry hides packed in naphthalin may be shipped as chemically cured hides.

Unsalted green hides from a district where cholera prevails must not be shipped.

25. The articles enumerated in the preceding paragraph coming from a district where smallpox, typhus fever, cholera, or plague prevails in epidemic form, should be refused shipment unless disinfected as hereinafter provided.

24. Nothing in these regulations shall be construed to modify or affect in any way any existing restrictions promulgated by the Secretary of the Treasury at the instance of the Bureau of Animal Industry, Department of Agriculture, regarding the importation of hides of neat cattle.

25. Any covering, shipped from or through an infected port or place, and which the consul or medical officer has reason to believe infected should be disinfected.

26. Any article presumably infected, which can not be disinfected, should not be shipped.

PASSENGERS AND CREW.

27. Passengers, for the purposes of these regulations, are divided into two classes, cabin and steerage.

28. When practicable, passengers should not ship from an infected port.

29. No person suffering from a quarantinable disease, or scarlet fever, measles, diphtheria, or other communicable disease, should be allowed to ship.

30. Steerage passengers and crew coming from cholera-infected districts should be detained five days in suitable houses or barracks located where there is no danger from infection, and all baggage disinfected.

31. Steerage passengers and crew from districts not infected with cholera, shipping at a port infected with cholera, unless passed through without danger of infection and no communication allowed between such persons and the infected locality, should be treated as those in the last paragraph.

32. Cabin passengers coming from cholera-infected districts embarking at a clean or an infected port should produce satisfactory evidence as to their exact places of abode during the five days immediately preceding embarkation. And if it appears that they or their baggage have been exposed to infection the baggage should be disin-

fect and the passengers detained under medical supervision a sufficient time to cover the period of incubation since last exposure.

33. Steerage passengers and crew who, in the opinion of the inspecting officer, have been exposed to the infection of yellow fever, should be held under medical observation in a place free from danger of infection for a period of five days before embarkation.

34. Steerage passengers and crew, coming from districts where smallpox prevails in epidemic form, or who have been exposed to smallpox, should be vaccinated before embarkation, unless they show evidence of having acquired immunity to smallpox by previous attack or recent successful vaccination.

35. Steerage passengers and crew who, in the opinion of the inspecting officer, have been exposed to the infection of typhus fever, should not be allowed to embark for a period of at least twelve days after such exposure and the disinfection of their baggage.

36. Steerage passengers and crew who, in the opinion of the inspecting officer, have been exposed to the infection of plague should be held under medical observation in a place free from danger of infection for a period of seven days before embarkation, and their baggage disinfected.

37. Cabin passengers coming from plague-infected districts, whether embarking at a clean or an infected port, should produce satisfactory evidence as to their exact places of abode during the seven days immediately preceding embarkation. And if it appears that they or their baggage have been exposed to infection the baggage should be disinfected and the passengers detained under medical supervision a sufficient time to cover the period of incubation since last exposure.

38. Should quarantinable disease appear in the barracks or houses in which passengers are undergoing detention, no passenger from said houses or barracks who has been presumably exposed to this new infection should embark until after the expiration of the period of incubation of the disease in question subsequent to the last exposure to infection and the application of all necessary sanitary measures.

39. All baggage of steerage passengers destined for the United States should be labeled. If the baggage is in good sanitary condition the label shall be a red label bearing the name of the port, the steamship on which the baggage is to be carried, the word "passed" in large type, the date of inspection, and the seal or stamp of the consular or medical officer of the United States. All baggage that has been disinfected shall bear a yellow label, upon which shall be printed the name of the port, the steamship upon which the baggage is to be carried, the word "disinfected" in large type, the date of disinfection and the seal or stamp of the consular or medical officer of the United States. It is understood, and it will be so printed on the blank, that the label is not valid unless bearing the consular or medical officer's stamp or seal.

40. Each steerage passenger shall be furnished with an inspection card (see page 20). This card, stamped by the consular or medical officer, is to be issued to every member of a family as well as to the head thereof.

INSPECTION CARD.

[Immigrants and steerage passengers.]

Port of departure _____ Date of departure _____
 Name of ship _____ Last permanent residence _____
 Name of immigrant _____

Inspected and passed at [Seal or stamp of consular or medical officer.]	Passed at quarantine, port of, United States.	Passed by Immigration Bureau, port of
	[Date.]	[Date.]

[The following to be filled in by ship's surgeon or agent prior to or after embarkation.]

Ship's list or manifest _____ No. on ship's list or manifest _____

Berth No.	Steam-ship inspection.	1st day.	2	3	4	5	6	7	8	9	10	11	12	13	14	To be punched by ship's surgeon at daily inspection.
.....																

VACCINATED.

[Signature or stamp.]

[REVERSE SIDE.]

Keep this Card to avoid detention at Quarantine and on Railroads in the United States.

Diese Karte muss aufbewahrt werden, um Aufenthalt an der Quarantäne, sowie auf den Eisenbahnen der Vereinigten Staaten zu vermeiden.

Cette carte doit être conservée pour éviter une détention à la Quarantaine, ainsi que sur les chemins de fer des États-Unis.

Deze kaart moet bewaard worden, ten einde openthoud aan de Quarantijn, alsook op de ijzeren wegen der Vereenigde Staten te vermijden.

Conservate questo biglietto onde evitare detenzione alla Quarantina e sulle Ferrovie degli Stati Uniti.

Tento lístek musíte uschovati, nechcete-li ukarantény (zastavení ohledně zjištění zdraví) neb na dráze ve spojených státech zdržení býti.

Tuto kartočku treba trímát' u sebe aby sa predešlo zderžovaňu v karantene aj na železnici ve Spojených Státoch.

41. In a port where any quarantinable disease prevails, the personnel of vessels should remain on board during their stay in such port.

42. Passengers and crews, merchandise and baggage, prior to shipment at a noninfected port, but coming from an infected locality, should be subject to the same restrictions as are imposed at an infected port.

RECORDS, REPORTS, ETC.

43. The officer making the inspection will preserve in his office a record of each inspection made and of each immunity certificate given; a copy of each certificate of disinfection and of each bill of health issued.

A weekly report of the transactions of his office shall be forwarded to the Surgeon-General at Washington, D. C.

44. In addition to the duties prescribed, the medical officer when detailed in accordance with the act of Congress approved February 15, 1893, shall furnish such reports to the Surgeon-General of the Public Health and Marine-Hospital Service as he may be able to make upon sanitary conditions and other matters affecting the public health and the welfare of the Service administration.

REQUIREMENTS AT SEA.^a

45. The master of a vessel should observe the following measures on board his vessel:

(a) The water-closets, fore-castle, bilges, and similar portions of the vessel liable to harbor infection should be disinfected and frequently cleansed.

(b) Free ventilation and rigorous cleanliness should be maintained in all portions of the ship during the voyage and measures taken to destroy rats, mice, fleas, flies, roaches, mosquitoes, and other vermin.

(c) A patient sick of a communicable disease should be isolated and one member of the crew detailed for his care and comfort, who, if practicable, should be immune to the disease.

(d) Communication between the patient or his nurse and other persons on board should be reduced to a minimum.

(e) Used clothing, body linen, and bedding of the patient and nurse should be immersed at once in boiling water or in a disinfecting solution.

(f) The compartment from which the patient was removed should be disinfected and thoroughly cleansed. Articles liable to convey infection should remain in the compartments during the disinfection when gaseous disinfection is used.

(g) Any person suffering from malaria or yellow fever should be kept under mosquito bars and the apartment in which he is confined closely screened with mosquito netting. All mosquitoes on board should be destroyed by burning pyrethrum powder (Persian insect powder) or by fumigation with sulphur. Mosquito larvæ (wigglers or wiggle-tails) should be destroyed in water barrels, casks, and other collections of water about the vessel by the use of petroleum (kerosene); where this is not practicable, use mosquito netting to prevent the exit of mosquitoes from such breeding places.

(h) In the case of plague, special measures must be taken to destroy rats, mice, fleas, flies, ants, and other vermin on board.

(i) In the case of cholera, typhoid fever, or dysentery, the drinking water should be boiled and the food thoroughly cooked. The discharges from the patient should be immediately disinfected and thrown overboard.

46. An inspection of the vessel, including the steerage, should be made by the ship's physician once each day.

^aThese requirements at sea are largely advisory in character, but it is nevertheless true that a careful compliance with them should tend, at the port of arrival, to largely relieve the stringency of quarantine measures.

47. Should cholera, yellow fever, smallpox, typhus fever, plague, or any other communicable disease appear on board a ship while at sea, those who show symptoms of these diseases should be immediately isolated in a proper place; the ship's physician should then immediately notify the captain, who should note same in his log, and all of the effects liable to convey infection which have been exposed to infection should be destroyed or disinfected.

48. The hospital should be disinfected as soon as it becomes vacant.

49. The dead should be enveloped in a sheet saturated with one of the strong disinfecting solutions, without previous washing of the body, and at once buried at sea or placed in a coffin hermetically sealed.

50. A complete clinical record should be kept by the ship's surgeon of all cases of sickness on board, and the record delivered to the quarantine officer at the port of arrival.

51. The following disinfecting solutions are recommended for use at sea:

Formulæ for strong disinfecting solutions.

BICHLORIDE OF MERCURY. (1:500.)

Bichloride of mercury	1 part
Sea water	500 parts
Mix.	

CARBOLIC ACID. (5 per cent.)

Alcohol	50 parts
Carbolic acid, pure	50 parts
Mix.	

Then add fresh water	900 parts
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Formulæ for weak solutions.

BICHLORIDE OF MERCURY. (1:1,000.)

Bichloride of mercury	1 part
Sea water	1,000 parts

CARBOLIC ACID. (2½ per cent.)

Carbolic acid, pure	25 parts
Fresh water	1,000 parts

FORMALIN. (5 per cent.)

Formalin (or formol)	50 parts
Water	950 parts

It is suggested that a vessel should carry for every 100 passengers: Bichloride of mercury, 5 pounds; carbolic acid, 10 pounds; alcohol, 10 pounds, and formalin, 10 pounds.

DOMESTIC REGULATIONS.

QUARANTINE REGULATIONS TO BE OBSERVED AT PORTS AND ON THE FRONTIERS OF THE UNITED STATES AND ITS POSSESSIONS AND DEPENDENCIES.

PREAMBLE.

52. At or convenient to the principal ports, quarantine stations should be equipped with all appliances for the inspection and treatment of vessels, their passengers, crews, and cargoes.

53. For all ports where such provisions have not been made, inspection stations should be maintained. An inspection service should be maintained for every port throughout the year.

54. At a fully equipped quarantine station there should be adequate provision for boarding and inspection, apparatus for mechanical cleansing of vessels, apparatus for disinfection by steam, by sulphur, by formaldehyde, by disinfecting solutions, or any other methods prescribed in these regulations; also a clinical laboratory, hospitals for contagious and doubtful cases, a steam laundry, detention barracks for suspects, bathing facilities, a crematory, a sufficient supply of good water, and a proper system for the disposal of sewage.

55. The personnel of quarantine stations in the yellow fever zone and on fruiters and other vessels of regular lines bound for southern ports from ports where yellow fever prevails should be immune to yellow fever.

56. At quarantine stations all articles liable to convey infection should be handled only by the employees of said station unless the services of the crew of the vessel in quarantine are indispensable.

57. Vessels having been treated at national quarantine stations that are located a considerable distance from the ports of entry of said vessels may be inspected by the local quarantine officer, and if for any sanitary reason it is considered inadvisable to admit the vessel, he should report the facts immediately by telegraph, when possible, to the Surgeon-General of the Public Health and Marine-Hospital Service, detaining the vessel pending his action.

58. The following regulations are the required minimum standard and do not prevent the addition of such other rules as, for special reasons, may be legally made by State or local authorities.

INSPECTION.

59. Every vessel subject to quarantine inspection, entering a port of the United States, its possessions or dependencies, shall be considered in quarantine until given free pratique. Such vessel shall fly a yellow flag at the foremast head from sunrise to sunset, and shall observe all the other requirements of vessels actually quarantined.

60. Vessels arriving at ports of the United States under the following conditions shall be inspected by a quarantine officer prior to entry:

(a) All vessels from foreign ports except those enumerated in paragraph 4.

(b) Any vessel with sickness on board.

(c) Vessels from domestic ports where cholera, plague, or yellow fever prevails, or where smallpox or typhus fever prevails in epidemic form.

(d) Vessels from ports suspected of infection with yellow fever, having entered a port north of the southern boundary of Maryland without disinfection, shall be subjected to a second inspection before entering any ports south of said latitude during the quarantine season of such port.

61. The inspections of vessels required by these regulations shall be made between sunrise and sunset, except in case of vessels in distress.

62. In making the inspection of a vessel, the bill of health and clinical record of all cases treated during the voyage, crew and passengers' lists and manifests, and when necessary, the ship's log shall be examined. The crew and passengers shall be mustered and examined and compared with the lists and manifests and any discrepancies investigated. The clinical thermometer should be used in the examination of the personnel of vessels under suspicion. When a freight

manifest shows that rags and other articles requiring disinfection under these regulations are carried by the vessel, a certificate of disinfection, signed by a United States consul or a medical officer of the United States, shall be exhibited and compared with same. If no certificate of disinfection is produced the collector of customs at the port of entry shall be notified of same by the quarantine officer. The collector of customs shall then hold such consignment in a designated place separate from other freight pending the arrival of the certificate of disinfection; and in the event of its nonarrival, the articles shall be disinfected as hereinbefore prescribed, or shall be returned by the common carrier conveying same.

63. The medical officers of the United States, duly clothed with authority to act as quarantine officers at any port or place within the United States, and when performing the said duties, are hereby authorized to take declarations and administer oaths in matters pertaining to the administration of the quarantine laws and regulations of the United States. (Act of Mar. 2, 1901, sec. 12.)

64. No person, except the quarantine officer, his employees, United States customs officers, pilots, or other persons authorized by the quarantine officer, shall be permitted to board any vessel subject to quarantine inspection until after the vessel has been inspected by the quarantine officer and granted free pratique, and all such persons so boarding such vessel shall, in the discretion of the quarantine officer, be subject to the same restrictions as the personnel of the vessel.

65. Towboats or any other vessels having had communication with vessels subject to inspection shall themselves be subject to inspection.

66. After arrival at a quarantine station of a vessel carrying immigrants and upon which there has appeared during the last voyage a case of cholera, smallpox, typhus fever, or plague, and after quarantine measures provided by regulations of the Treasury Department have been enforced and the vessel given free pratique, it is hereby ordered that notification of the above-mentioned facts be transmitted by the quarantine officer to the Commissioner of Immigration at the port of arrival, who shall be requested to transmit, by mail or telegraph, to the State health authorities of the several States to which immigrants from said vessel are destined, the date of departure, route, number of immigrants, and the point of destination in the respective States of the immigrants from said vessel, together with the statement that said immigrants are from a vessel which has been subject to quarantine by reason of infectious disease, naming the disease. This information is furnished to State health officers for the purpose of enabling them to maintain such surveillance over the arriving immigrants as they may deem necessary.

67. When a vessel arriving at quarantine has on board any of the communicable but nonquarantinable diseases, the quarantine officer shall promptly inform the local health authorities of the existence of such disease aboard and shall make every effort to furnish such notification in ample time, if possible, to permit of the case being seen by the local authorities before discharge from the vessel.

QUARANTINE.

68. Vessels arriving under the following conditions shall be placed in quarantine:

(a) With quarantinable disease on board or having had such disease on board during the voyage.

(b) Any vessel which the quarantine officer considers infected.

(c) If arriving at a port south of the southern boundary of Maryland in the season of close quarantine, May 1 to November 1, directly or via a northern port, from a tropical American port, unless said port is known to be free from yellow fever.

(d) In the case of vessels arriving at a northern port without sickness on board from ports where yellow fever prevails, the personnel shall be detained under observation at quarantine to complete five days from the port of departure.

(e) Towboats and other vessels having had communication with vessels subject to quarantine shall themselves be quarantined if they have been exposed to infection.

69. Vessels arriving under the following conditions need not be subject to quarantine:

A. Vessels from yellow fever ports bound for ports in the United States north of the southern boundary of Maryland, with good sanitary condition and history, having had no sickness on board at ports of departure, en route or on arrival, provided they have been five days from last infected or suspected port.

B. Vessels engaged in the fruit trade may be admitted to entry without detention, provided that they have complied in all respects with the special rules and regulations made by the Secretary of the Treasury with regard to vessels engaged in said trade.

GENERAL REQUIREMENTS AT QUARANTINE.

70. Pilots will be detained in quarantine a sufficient time to cover the period of incubation of the disease for which the vessel is quarantined, if, in the opinion of the quarantine officer, such pilots have been exposed to infection. The dunnage of pilots shall be disinfected when necessary.

71. No direct communication shall be allowed between any vessel in quarantine and any person or place outside, and no communication whatever between quarantine or any vessel in quarantine and any person or place outside except under the supervision of the quarantine officer.

72. Street cleanings, street sweepings, or any other form of ballast containing organic refuse must be discharged at the quarantine station.

73. No presumably infected ballast shall be allowed to leave the quarantine station until disinfected.

74. After a vessel has been rendered free from infection, it may be furnished with a fresh crew and released from quarantine, while all or part of the personnel are detained. Under these circumstances the quarantine officer must exercise the greatest care that the vessel shall not become reinfected, especially by contact with persons in quarantine or infected objects.

75. Vessels detained at any national quarantine will be subject to such additional rules and regulations as may be promulgated from time to time by the Surgeon-General.

76. The form of certificate which shall be issued to a vessel by the health officer when he releases her from quarantine shall be prescribed by the Surgeon-General of the Public Health and Marine-Hospital Service, and shall embody the statement that the vessel has in all respects complied with the quarantine regulations prescribed by the Secretary of the Treasury, and that in the opinion of the quarantine

officer she will not convey quarantinable disease, and that said vessel is granted free pratique to enter her port of destination, the name of which is to be embodied in the blank.

77. The persons detained shall be inspected by the physician twice daily, and be under his constant surveillance, and no intercourse will be allowed between different groups while in quarantine.

78. No articles from an infected vessel shall be carried into the place of detention until disinfected.

79. Cleanliness of quarters and of person shall be enjoined and daily enforced. Disinfection shall be practiced where there is any possibility of infection.

80. The water and food supply shall be strictly guarded to prevent any contamination.

81. Water-closets, urinals, privies, or troughs shall be provided, and their contents disinfected before they are discharged.

82. In any group in which communicable disease appears, the sick will be immediately isolated in hospital, and the remaining persons in the group and their effects appropriately treated and then removed to other quarters if possible, and the compartments disinfected.

83. Communication between the physician and attendants of the hospital and those detained in other parts of the quarantine station shall be reduced to a minimum.

84. No convalescent shall be discharged from quarantine until after a sufficient time has elapsed to insure his freedom from infection, and this is to be determined by bacteriological examination where possible.

85. No other person shall be discharged from quarantine until the period of incubation of the disease has elapsed since the last exposure to infection.

86. The body of no person dead of quarantinable disease shall be allowed to pass through quarantine until one year has elapsed since death. Such bodies must be transported in hermetically sealed coffins, the outsides of which have been carefully disinfected.

In the case of the bodies of such persons as may have died on the voyage or upon arrival at quarantine, cremation should be resorted to if practicable and consented to; if not, the body should be wrapped without preliminary washing in a sheet saturated with a solution of bichloride of mercury 1:500 and buried, surrounded by caustic lime.

87. The quarantine officer shall report to the Secretary of the Treasury all violations of the quarantine laws. He should also report the facts in the case to the Surgeon-General of the Public Health and Marine-Hospital Service.

88. The quarantine officer shall report to the collector of customs any vessel which arrives without the bill of health hereinbefore prescribed.

89. All vessels requiring inspection under these regulations must present to the collector of customs at the port of entry the quarantine certificate above prescribed.

SPECIAL REGULATIONS ON ACCOUNT OF CHOLERA.

90. For the purpose of these regulations five days shall be considered as the period of incubation of cholera.

91. If the vessel carry persons from cholera-infected ports or places, a bacteriological examination should be made of any cases of diarrhea to exclude cholera before granting free pratique.

92. If cholera has appeared on board, remove all passengers from the vessel and all of the crew, save those necessary to care for her; place the sick in hospital. Carefully isolate those especially suspected and segregate the remainder in small groups. No communication should be held between these groups. Those believed to be especially capable of conveying infection must not enter the place of detention until they are bathed and furnished with noninfected clothing; nor shall any material capable of conveying infection be taken into the place of detention, especially food and water.

93. Water and food supply must be strictly guarded to prevent contamination and issued to each group separately.

94. Food of a simple character, sufficient in quantity, thoroughly cooked, shall be issued to those detained in quarantine. No fruit or uncooked vegetables shall be permitted.

95. The greatest care must be exercised to prevent the spread of the infection through the agency of flies or other insects.

96. The dejecta from all persons in quarantine on account of cholera shall be disinfected before final disposition.

97. The water supply of the vessel, if suspected of infection, must be disinfected and then changed without delay; the casks or tanks disinfected and after thorough rinsing refilled from a source of undoubted purity, or the water furnished must have been recently boiled.

98. The baggage or effects of passengers and crew that may have been exposed to infection must be disinfected.

99. Articles of cargo which have been exposed to infection and are liable to convey the same must be disinfected.

100. Living apartments and their contents and such other portions of the vessel as have been exposed to infection must be disinfected.

101. Water ballast taken on at a cholera-infected port should be discharged at sea, or if discharged in fresh or brackish water must previously be disinfected. Vessels arriving with water ballast presumably infected must return to sea under guard in order to discharge such ballast. If practicable the tanks should be disinfected before being flushed, and refilled with sea water.

SPECIAL REGULATIONS ON ACCOUNT OF YELLOW FEVER.

102. For the purpose of these regulations, five days shall be considered as the period of incubation of yellow fever.

103. Where practicable remove the sick to hospital; remove and isolate all persons not required for care of vessel.

104. For the destruction of mosquitoes there shall be a preliminary and simultaneous fumigation of all parts of the vessel by sulphur dioxide gas. In cabins containing articles liable to damage by sulphur dioxide, pyrethrum powder may be burned instead.

105. If, from the disposition of the cargo or any other reason, the previous fumigation is deemed not to have been effective, a complete fumigation is now to be done, simultaneously, of the whole vessel. Measures are in all cases to be taken to destroy larvæ of mosquitoes aboard.

106. The personnel of the vessel shall be detained five days from completion of disinfection, or if they have been removed before disinfection of the vessel, their detention shall begin from last possible exposure to infection.

If cases of yellow fever have occurred aboard, the time of detention at stations south of the southern boundary of Maryland must be extended to six days.^a

107. If the vessel has in all respects complied with the quarantine regulations to be observed at foreign ports in such cases, and has been disinfected under the supervision of an accredited medical officer of the United States at the port of departure, she may, upon arrival at her port of destination in the United States, with good sanitary history and in good condition, be subject to the following treatment:

(a) If arriving in five days or less, she may be admitted to pratique without disinfection or further detention than is necessary to complete the five days.

(b) If arriving after five days and within ten days, she may be immediately fumigated and admitted without detention.

(c) If arriving after a longer voyage than ten days, she shall be treated as if she had not been subjected to any previous treatment.^b

108. Passenger traffic without detention may be allowed during the close quarantine season, May 1 to November 1, from ports infected with yellow fever to ports in the United States south of the southern boundary of Maryland under the following conditions:

(a) Vessels to be of iron or the best class of wooden vessels, and to be cleaned immediately prior to taking on passengers. The officer issuing the bill of health to these vessels shall withhold the same if the vessel is not in first-class sanitary condition and complying in every respect with the conditions stated in this paragraph.

(b) The vessel must lie at approved moorings in the open harbor; must not approach the wharves, nor must the crew be allowed ashore at the port of departure. Every possible precaution must be taken to prevent the ingress of mosquitoes, and to provide for the destruction of these should they find ingress.

(c) All passengers and crew must be immune to yellow fever and so certified by the United States medical officer.^c

109. The disinfection of baggage for yellow fever is not required, but baggage destined directly or indirectly for any State shall be disinfected at the request of the health officer of said State. All baggage shall be inspected and the absence of mosquitoes definitely proven. The presence of any mosquitoes, regarding the infection of which the quarantine officer has doubts, shall be sufficient grounds for such further measures as the quarantine officer may deem justifiable.

SPECIAL REGULATIONS ON ACCOUNT OF SMALLPOX.

110. For the purpose of these regulations, fourteen days shall be considered as the period of incubation of smallpox.

111. On all vessels arriving with smallpox on board, or having had smallpox on board during the voyage, any of the personnel who have been exposed to the infection of the disease must be vaccinated or

^aThe period of incubation of yellow fever is not rarely over five days.

^bIf the vessel should have been in transit for a considerable number of days, it is obvious that a case of yellow fever may have occurred and recovered, leaving the vessel infected, and not affording any opportunity to the quarantine officer to determine same.

^cThe evidence of immunity which may be accepted by the sanitary inspector is: First, proof of previous attack of yellow fever; second, proof of continued residence in an endemic focus of yellow fever for ten years.

detained in quarantine not less than fourteen days, unless they show satisfactory evidence of recent successful vaccination or of having had smallpox.

112. Vessels arriving with smallpox on board which has been properly isolated and other sufficient precautions taken to prevent the spread of the disease need not be quarantined further than the removal of the sick, the disinfection of all compartments, baggage, and objects that have been exposed to the liability of infection, and such vaccination of the personnel as required in paragraph 111.

113. On vessels arriving with smallpox on board and where the proper isolation and other precautions have not been taken, all those whom the quarantine officer believes to have been exposed to the infection will be detained unless they have had smallpox or unless they show satisfactory signs of having been properly vaccinated within one year.

114. Living compartments and their contents or any other parts of the vessel exposed to the infection must be disinfected.

115. The baggage and effects of passengers and crew that have been exposed to the infection must be disinfected.

SPECIAL REGULATIONS ON ACCOUNT OF TYPHUS FEVER.

116. For the purpose of these regulations twelve days shall be considered as the period of incubation of typhus fever.

117. Vessels in otherwise good sanitary condition, but having typhus fever on board which has been properly isolated, need not be quarantined further than the removal of the sick, and disinfection of the compartments and their contents exposed to infection.

118. If the case has not been isolated, or the disease has spread on board from person to person, the vessel will be quarantined, the sick removed, and those who have been exposed to the infection detained under observation.

119. Vessels in bad sanitary condition, on which the disease has appeared, will be quarantined until thoroughly cleansed and disinfected throughout; the sick will be cared for at isolated hospitals, and those exposed to the infection detained under observation.

120. The baggage and effects of passengers and crew that have been exposed to the infection must be disinfected.

121. Living compartments and their contents, or any other parts of the vessel exposed to the infection must be disinfected.

SPECIAL REGULATIONS ON ACCOUNT OF LEPROSY.

122. Vessels arriving at quarantine with leprosy on board shall not be granted pratique until the leper with his or her baggage has been removed from the vessel to the quarantine station.

123. No alien leper shall be landed.

124. If the leper is an alien passenger and the vessel is from a foreign port, action will be taken as provided by the immigration laws and regulations of the United States. And to this end the case shall be certified as a leper and reported to the nearest commissioner of immigration.

125. If the leper is an alien and a member of the crew and the vessel is from a foreign port, said leper shall be detained at the quarantine at the vessel's expense until taken aboard by the same vessel

when outward bound. Such case of leprosy should be promptly reported to the collector of customs at the port of arrival of the vessel, and the collector shall exact a bond from the vessel for the reshipment of the said alien leper upon the departure of the vessel.

SPECIAL REGULATIONS ON ACCOUNT OF PLAGUE.

126. For the purpose of these regulations seven days shall be considered as the period of incubation of plague.

127. In those actually exposed to the infection of plague the administration of antipest serum is regarded as a valuable prophylactic measure; for the prevention of the introduction of plague into a community liable to the introduction of plague through commercial intercourse, immunization by Haffkine's prophylactic is to be recommended.

128. Vessels infected with plague, or suspected of such infection, should be anchored at a sufficient distance from the shore or other vessels, to prevent the escape of rats by swimming.

129. In inspecting vessels from plague-infected ports, or vessels with plague on board at port of departure, en route or on arrival, the personnel of the vessel should be examined with special reference to the glandular regions, cervical, axillary, and inguinal, and for such examination as much clothing should be removed as may interfere with the thoroughness of the process. When possible, females should be examined by female inspectors.^a

130. In the inspection of vessels for plague, special attention must be directed to the discovery of cases of a mild type or of the pneumonic form of the disease. Suspected or doubtful cases should be subjected to bacteriological examination before the vessel is released.

131. On all plague-infected vessels, any of the personnel of such vessels who, in the opinion of the quarantine officer, are infected or have been exposed to infection, shall be bathed and body clothing and hand baggage disinfected.

132. Nothing shall be thrown overboard from the vessel, not even deck sweepings. Such material shall be burned in the furnaces of a steamer, or in a place specially designated, but not in the galley.

133. Special precautions must be taken against rats, mice, ants, flies, fleas, and other animals, on account of the danger of the infection of the disease being spread through their agency.

134. As soon as practicable, there shall be a preliminary disinfection with sulphur dioxide for the purpose of killing rats and vermin, before further disinfecting processes are applied to the vessel and her cargo. The killing of any escaping rats shall be provided for by a water guard in small boats, and no person with abrasions or open sores should be employed in the handling of the vessel or her cargo.

135. The vessel shall be submitted to a simultaneous disinfection in all parts with sulphur dioxide to insure the destruction of rats and vermin. The rats shall be subsequently gathered and burned, due precautions being taken not to touch them with the bare hands, and the places where found disinfected with a germicidal solution; and the quarantine officer shall assure himself that the vessel is free of rats and vermin before granting free pratique.

^aThe examination herein provided being an exceedingly delicate matter, the greatest possible care is to be used by the quarantine officer to avoid any grounds for complaint of indecent exposure, and more particularly with regard to females.

136. Disinfection of vessels for plague shall be as follows:

With cargo: After twelve hours' exposure to sulphur dioxide, the upper 4 to 6 foot layer of cargo may be removed and placed on lighters exposed to the sun. This process of disinfection by night, and removal of successive layers of cargo by day, to be continued until hold is empty.

137. Vessels without cargo shall be disinfected by sulphur dioxide, followed by germicidal solutions, in accordance with the general regulations for disinfection, paragraphs 156 to 185.

CANADIAN AND MEXICAN FRONTIERS.

138. When practicable, alien immigrants arriving at Canadian or Mexican ports, destined for the United States, shall be inspected at the Canadian or Mexican port of arrival by the United States consular or medical officer, and be subjected to the same sanitary restrictions as are called for by the rules and regulations governing United States ports.

139. Inspection cards will be issued by the consular or United States medical officer at the Canadian or Mexican port of arrival to all such alien immigrants, and labels affixed to their baggage, as is required at foreign ports in the case of those coming direct to any port of the United States.

140. If any person be found suffering from a quarantinable disease, or be presumably infected, he shall be denied entry or shall be kept under quarantine observation so long as danger of conveying the infection exists.

141. Any baggage or other effects believed to be infected shall be refused entry unless disinfected in accordance with these regulations.

142. Persons coming from localities where cholera is prevailing shall not be allowed entry until after five days have elapsed since last presumable exposure to infection, and their baggage disinfected.

143. During the quarantine season persons not positively identified as immune to yellow fever, coming from places where yellow fever prevails, will not be permitted to enter until they have been away from said localities five full days.

144. Persons coming from localities where smallpox is prevailing shall not be allowed entry without vaccination, unless they are protected by a previous attack of the disease or a recent successful vaccination. The baggage of persons from such localities shall be disinfected.

145. Persons coming from localities where typhus fever prevails in epidemic form shall not be allowed entry until twelve days have elapsed since their last possible exposure to infection and the disinfection of their baggage.

146. Persons coming from localities where plague is prevailing shall not be allowed entry until seven days have elapsed since their last possible exposure to infection and the disinfection of their baggage.

147. No common carrier which is infected, or suspected of being infected, shall be allowed to enter the United States until after such measures have been taken as will render it safe.

148. Articles of merchandise, personal effects, etc., which are presumably infected, shall not be allowed entry into the United States until after disinfection.

149. Rags gathered and baled in Canada, accompanied by affidavits that the ports or places where collected or handled were free from quarantinable disease for thirty days prior to shipment, may be admitted to entry; but rags from foreign ports shipped through Canada shall not be admitted to entry unless they are accompanied by a certificate of a United States consul or medical officer of the United States that they have been disinfected, or until after they have been unbaled and disinfected at the port of arrival.

150. Where not otherwise specifically stated, the rules and regulations for maritime quarantine shall be applied at stations on the Canadian and Mexican frontiers; and the methods of disinfections shall be those prescribed in these regulations.

SPECIAL REGULATIONS RELATING TO NAVAL VESSELS.

151. Vessels of the U. S. Navy may be granted the hereinafter stated exemptions from quarantine regulations, but are subject to quarantine inspection upon arrival at a port of the United States.

152. The certificates of the medical officers of the U. S. Navy as to the sanitary history and condition of the vessel and its personnel may be accepted for naval vessels by the quarantine officer boarding the vessel in lieu of an actual inspection.

153. Vessels of the U. S. Navy having entered the harbors of infected ports, but having held no communication which is liable to convey infection, may be exempted from the disinfection and detention imposed on merchant vessels from such ports.

INSPECTION OF STATE AND LOCAL QUARANTINES.

154. In the performance of the duties imposed upon him by the act of February 15, 1893, the Surgeon-General of the Public Health and Marine-Hospital Service shall, from time to time, personally or through a duly detailed officer of the Public Health and Marine-Hospital Service, inspect the maritime quarantines of the United States, State and local, as well as national, for the purpose of ascertaining whether the quarantine regulations prescribed by the Secretary of the Treasury have been or are being complied with. The Surgeon-General, or the officer detailed by him as inspector, shall, at his discretion, visit any incoming vessel or any vessel detained in quarantine, and all portions of the quarantine establishment, for the above-named purpose, and with a view to certifying, if need be, that the regulations have been or are being enforced.

155. The Surgeon-General of the Public Health and Marine-Hospital Service is authorized, when in his discretion such action is necessary in the interest of the public health, to remand, by direction of the Secretary of the Treasury, any vessel to the nearest national, State, or local quarantine station provided with proper facilities for handling infected vessels.

**DISINFECTANTS AUTHORIZED BY THESE REGULATIONS AND THE PROPER
METHODS OF GENERATING AND USING SAME.**

PHYSICAL DISINFECTANTS.

156. Burning. Of unquestioned efficiency, but seldom required.

157. Boiling. Very efficient and of wide range of applicability. The articles must be wholly immersed for not less than thirty minutes in water actually boiling (100° C.). The addition of 1 per cent of carbonate of soda renders the process applicable to polished steel, cutting instruments or tools.

158. Steam.

(a) Flowing steam (not under pressure). Flowing steam (not under pressure) when applied under suitable conditions is an efficient disinfecting agent. The exposure must be continued thirty minutes after the temperature has reached 100° C.

(b) Steam under pressure without vacuum. Steam under pressure will sterilize, provided that the process is continued twenty minutes after the pressure reaches 15 pounds per square inch. The air must be expelled from the apparatus at the beginning of the process. If impracticable to obtain the designated pressure, a longer exposure will accomplish the same result.

(c) Steam under pressure with vacuum. Steam in a special apparatus with vacuum attachment is the best method of applying steam under pressure, the object of the vacuum apparatus being to expel the air and to promote the penetration of the steam. The process is to be continued for twenty minutes after the pressure reaches 10 pounds to the square inch.

GASEOUS DISINFECTANTS.

159. Sulphur dioxide. Sulphur dioxide is efficient, but requires the presence of moisture. It is only a surface disinfectant, and is lacking in penetrating properties. An atmosphere containing 4.5 per cent can be obtained by burning 5 pounds of sulphur per 1,000 cubic feet of space. This amount would require the evaporation or volatilization of about 1 pint of water. Under these conditions the time of exposure should be not less than twenty-four hours for bacterial infections. A shorter time will suffice for fumigation necessary to kill mosquitoes and other vermin.

160. The sulphur may be burned in shallow iron pots (Dutch ovens) containing not more than 30 pounds of sulphur for each pot, and the pots should stand in vessels of water. The sulphur pots should be elevated from the bottom of the compartment to be disinfected in order to obtain the maximum possible percentage of combustion of sulphur. The sulphur should be in a state of fine division, and ignition is best accomplished by alcohol; special care to be taken with this method to prevent damage to cargo of vessel by fire; or the sulphur may be burned in a special furnace, the sulphur dioxide being distributed by a power fan. This method is peculiarly applicable to cargo vessels.

161. Liquefied sulphur dioxide may be used for disinfection in place of sulphur dioxide generated as above, it being borne in mind that this process will require 2 pounds of the liquefied gas for each pound of sulphur as indicated in the above paragraphs.

162. Sulphur dioxide is especially applicable to the holds of vessels, or to freight cars and apartments that may be tightly closed and which do not contain objects injured by the gas. Sulphur dioxide bleaches fabrics or materials dyed with vegetable or aniline dyes. It destroys linen or cotton goods by rotting the fiber through the agency of the acids formed. It injures most metals. It is promptly destructive to all forms of animal life. This property renders it a valuable agent for the extermination of rats, insects, and other vermin.

FORMALDEHYDE GAS.

163. Formaldehyde gas is effective if applied by one of the methods given below. Formaldehyde gas has the advantage as a disinfectant that it does not injure fabrics or most colors. It is not poisonous to the higher forms of animal life. It fails to kill vermin such as rats, mice, roaches, bedbugs, etc. The method is not applicable to the holds of large vessels. Formaldehyde is applicable to the disinfection of rooms, clothing, and fabrics, but should not be depended upon for bedding, upholstered furniture, and the like, when deep penetration is required.^a

164. Many formaldehyde solutions do not contain 40 per cent of formaldehyde, and all are apt to deteriorate with time. It is therefore necessary to use a quantity in excess of the amount prescribed in these regulations, unless the solution has been recently analyzed.

165. The following methods of evolving the gas may be used:

(a) Autoclave under pressure, 3 to 12 hours' exposure.

(b) Lamp or generator, 6 to 18 hours' exposure.

(c) Spraying, 12 to 24 hours' exposure.

(d) Formaldehyde and dry heat in partial vacuum, 1 hour's exposure.

166. The minimum number of hours' exposure as given above applies to empty rooms of tight construction containing smooth, hard, surfaces; the maximum number of hours' exposure applying in all cases to textiles and other articles of a similar kind requiring more or less penetration.

167. Autoclave under pressure. This method has considerable penetrating power when applied as detailed below. Rooms or apartments need no special preparation beyond the ordinary closing of doors and windows. Pasting, caulking, or chinking of ordinary cracks and crevices is not necessary. The doors of lockers and closets and the drawers of bureaus should be opened. In this apparatus use formalin (40 per cent), with the addition of a neutral salt, such as calcium chloride (20 per cent). The gas must be evolved under a pressure not less than 45 pounds. After the gas is separated from its watery solution the pressure may be allowed to fall and steam projected into the compartment to supply the necessary moisture. Use not less than 10 ounces of formalin per 1,000 cubic feet, and keep the room closed for three to twelve hours after the completion of the process. For large rooms the gas must be introduced at several points as far apart as possible. It is applicable to the disinfection of clothing and fabrics suspended loosely in such a manner that every article is freely accessible to the gas from all directions.

168. Lamp or generator. This method requires an apparatus producing formaldehyde by a partial oxidation of wood alcohol, and in using it the room or apartment should be rendered tight as practicable. Oxidize 24 ounces of wood alcohol per 1,000 cubic feet, and keep the

^aIt should be noted that formaldehyde disinfection is more efficient in warm, moist or still weather than in cold, dry or windy weather.

room closed for six to eighteen hours, in accordance with the provisions of paragraph 165. This method leaves little or no odor. When applied to clothing and textiles, the articles should be suspended in a tight room and so disposed as to permit free access of the gas. (See also Par. 166.) The wood alcohol should be of 95 per cent strength, and should not contain more than 5 per cent of acetone.

169. Spraying. The formalin (40 per cent) should be sprayed on sheets suspended in the room in such a manner that the solution remains in small drops on the sheet. Spray not less than 10 ounces of formalin (40 per cent) for each 1,000 cubic feet. Used in this way a sheet will hold about 5 ounces without dripping or the drops running together. The room must be very tightly sealed in disinfecting with this process, and kept closed not less than twelve hours. The method is limited to rooms or apartments not exceeding 2,000 cubic feet. The formalin may also be sprayed upon the walls, floors, and objects in the rooms.

170. Formaldehyde with dry heat in partial vacuum. This method has superior penetrating powers and is specially applicable to clothing and baggage. The requirements of this method are (1) dry heat of 60° C. sustained for one hour; (2) a vacuum of 15 inches; (3) formaldehyde evolved from a mixture of formalin with a neutral salt, in an autoclave under pressure, using not less than 30 ounces of formalin (40 per cent) for 1,000 cubic feet; and (4) a total exposure, under these combined conditions, of one hour.

171. The stated times of exposure to sulphur dioxide and formaldehyde are sufficient to destroy bacterial infection due to non-spore-bearing organisms, providing that the infection is present on the surface. If the room is of peculiar construction, so as to impede the diffusion of the gas, or if the room is a dirty one, or if on account of any other condition rendering the germicidal action of the gas more difficult, the time of exposure should be proportionately increased, or supplanted by other methods.

CHEMICAL SOLUTIONS.

172. Bichloride of mercury. Bichloride of mercury is a disinfectant of undoubted potency and wide range of applicability. It can not be depended upon to penetrate substances in the presence of albuminous matter. It should be used in solutions of 1 to 1,000. The solubility of bichloride of mercury may be increased by using sea water for the solution, or by adding 2 parts per 1,000 of sodium or ammonium chloride to the water employed.

173. Carbolic acid. Carbolic acid in the strength of 5 per cent (see par. 51) may be substituted for the bichloride of mercury, and should be employed in the disinfection of the cabins and living apartments of ships to obviate injurious action on polished metals, bright work, etc.

174. Formalin. Formalin containing 40 per cent of formaldehyde may be used in a 5 per cent solution as a substitute for bichloride of mercury or carbolic acid, and is useful for the disinfection of surfaces, dejecta, fabrics, and a great variety of objects, owing to its noninjurious character.

APPLICATION OF DISINFECTANTS IN QUARANTINE WORK.

175. Hold of iron vessels, empty, shall be disinfected by either:

(a) Sulphur dioxide generated by burning sulphur 5 pounds per 1,000 cubic feet of air space, or liberated from 10 pounds of liquid sul-

phur dioxide, sufficient moisture being present in both cases; time of exposure, twenty-four hours. (See par. 159.)

(b) Washing with a solution of bichloride of mercury, 1:1,000.

176. Holds of wooden vessels, empty, shall be disinfected by:

(a) Sulphur dioxide in the manner prescribed above, followed by

(b) Washing with a solution of bichloride of mercury.

177. In the case of all vessels, both iron and wooden, when treated for yellow fever or plague infection, the first process shall be a preliminary fumigation by sulphur dioxide in the manner previously stated in paragraphs 159-160, in order to insure the destruction of mosquitoes, rats, and other vermin.

178. Holds of cargo vessels, when cargo can not be removed, shall be disinfected in so far as possible by sulphur dioxide not less than 4 per cent per volume strength, and where possible this should be generated from a furnace to minimize danger of fire in cargo.

179. Living apartments, cabins, and forecastles of vessels shall be disinfected by one or more of the following methods:

(a) Sulphur dioxide, the destructive action of the gas on property being borne in mind.

(b) Formaldehyde gas.

(c) Washing with solution of bichloride of mercury, 1:1,000 or 5 per cent solution of formalin, or 5 per cent solution of carbolic acid, preference being given to carbolic acid for application to polished woods, bright metals, and other objects injured by metallic salts.

The fore-castle, steerage, and other living apartments in bad sanitary condition must be disinfected by method (a) followed by method (c).

180. Mattresses, pillows, and heavy fabrics are to be disinfected by:

(a) Boiling.

(b) Flowing steam, i. e., steam not under pressure.

(c) Steam under pressure.

(d) Steam in a special apparatus with vacuum attachment.

181. Clothing, fabrics, textiles, curtains, hangings, etc., may be treated by either of the above methods from (a) to (d) inclusive, as circumstances may demand, or by formaldehyde gas or sulphur dioxide where the article is of a character which will not be damaged by sulphur dioxide.

182. Articles injured by steam, such as leather, furs, skins, rubber, trunks, valises, hats and caps, bound books, silks, and fine woollens should not be disinfected by steam. Such articles should be disinfected by formaldehyde gas or by any of the agents allowed in these regulations which may be applicable thereto. Those which will be injured by wetting should be disinfected by a gaseous agent.

183. Clothing, textiles, and baggage, clean and in good condition, but suspected of infection, can be efficiently and least injuriously disinfected by formaldehyde gas, generated by one of the methods prescribed in paragraph 165—(a), (b), or (d).

184. Textiles which are soiled with the discharges of the sick or presumably are deeply infected, must be disinfected by:

(a) Boiling.

(b) Steam.

(c) Immersion in one of the germicidal solutions.

185. Cooking and eating utensils are always to be disinfected by immersion in boiling water or by steam.

